OF TERTIARY ROCKS IN THE LITUYA DISTRICT, ALASKA

DON J. MILLER

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Note: This chart is preliminary and has not been edited or reviewed for conformity with U.S. Geological Survey standards and nomenclature.

MEASURED SECTION CENOTAPH ISLAND

Southeast shore of island; higher beds not exposed.

175' Massive to thin-bedded fine- to medium-grained greenish-gray to olive gray sandstone, massive gray siltstone. Partly concealed.

75' Massive to thin-bedded fine-grained gray sandstone, gray siltstone.

75' Massive to thin-bedded fine-grained gray sandstone, gray siltstone.
70' Massive dark-gray "conglomeratic" sandy mudstone; pebble-cobble cgl.

155' Massive to thin-bedded fine-grained gray sandstone, sandy siltstone.

120' Massive fine-grained olive gray sandstone, massive gray siltstone.
110' Massive fine-grained dark-greenish-gray sandstone, dark-gray siltstone.

130' Massive dark-greenish-gray siltstone, massive olive gray sandstone.

110' Massive fine-grained gray sandstone, dark-gray siltstone; pebble cgl.

120' Massive to platy dark-olive gray siltstone; gray sandstone.

90' Pebble-cobble conglomerate with green sandstone matrix, dark-green fine- to coarse-grained sandstone, red siltstone. Rock fragments in conglomerate are largely diorite.

425' Concealed

130' Partly concealed; outcrops are volcanic breccia .

245' Massive volcanic breccia with green matrix.

Massive volcanic breccia; thin beds of tuffaceous sandstone at top and near base.

East cape of island; lower beds not exposed

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MEASURED SECTION
LOWER TOPSY CREEK

Outer margin of reef near mouth of Topsy Creek; section overlain by about 5,000' of younger beds of similar lithology, but less indurated, between Crillon River and La Perouse Glacier

280'+ Massive greenish-gray to olive gray "conglomeratic" sandy mudstone, massive dark-gray siltstone, thin beds of fine-grained sandstone.

320' Massive dark-gray siltstone with thin beds of fine-grained sandstone; massive fine-grained gray sandstone.

230' Massive greenish-gray "conglomeratic" sandy mudstone.

190' Massive fine-grained gray sandstone, dark-gray siltstone.

85' Massive fine- to medium-grained gray sandstone, pebble conglomerate.

Massive fine- to medium-grained gray sandstone, dark-gray siltstone,

285' in part rhythmically interbedded; pebble conglomerate, dark-gray "conglomeratic" sandy mudstone.

465: Massive dark-gray siltstone and mudstone, fine-grained gray sandstone, rhythmically interbedded sandstone and siltstone.

260' Massive gray "conglomeratic" sandy mudstone.

545 Massive gray siltstone and "conglomeratic" sandy mudstone; few thin beds of fine-grained gray sandstone.

190' Massive, platy-weathering dark-gray siltstone.

210' Massive dark-gray siltstone, mudstone, and "conglomeratic" sandy mudstone, fine-grained gray sandstone.

425: Massive light- to dark-gray siltstone and "conglomeratic" sandy mudstone, massive fine-grained gray sandstone.

245' Massive dark-gray siltstone.

170' Massive fine- to medium-grained gray to olive gray sandstone, thin beds of siltstone.

105' Massive gray-siltstone and "conglomeratic" sandy mudstone.

105' Massive fine-grained gray sandstone, pebble conglomerate.

Massive gray "conglomeratic" sandy mudstone.

160' Massive to thin-bedded greenish-gray sandstone, siltstone.

340, Massive gray siltstone with thin beds of massive to slabby gray

sandstone. Siltstone weathers reddish brown.

95' Massive to slabby fine-grained gray sandstone, dark-gray siltstone. '85' Dark-green siltstone and pebbly sandstone, pebble-cobble conglomerate.

SCALE IN FEET

Rock fragments in conglomerate are largely diorite.

Axis of anticline on Topsy Creek; section apparently

underlain by volcanic rocks on Steelhead Creek to northwest.

GENERALIZED SECTION
UPPER TOPSY CREEK

Topsy Creek, about 4,000' upstream from axis of syncline; higher beds partly concealed.

200'+ Massive gray "conglomeratic" sandy mudstone; some sandstone, siltstone.

Largely fine- to medium-grained light-gray to greenish-gray sandstone;
500'± some siltstone and conglomerate. Dark-green pebbly sandstone near

Massive dark-gray siltstone with thin beds of thin-bedded ripple-marked sandstone; massive gray to greenish-gray sandstone.

300'± Largely massive to thin-bedded gray to brownish-gray sandstone; some siltstone.

Largely massive to platy gray siltstone; thin beds of fine-grained 1,200'± gray sandstone. Siltstone weathers reddish brown. Unconformity at base.

Mesozoic(?) metasedimentary and metavolcanic rocks.

EXPLANATION FOR COLUMNAR SECTIONS

Volcanic breccia

Sandy siltstone or mudstone

"Conglomeratic" sandy mudstone

Siltstone

Calcareous concretions

Massive sandstone

Location of fossil collection

Bedded sandstone

ITSS ;

See geologic map for explanation of letter symbols representing stratigraphic units. MEASURED SECTION
ICY POINT

Outer margin of reef west of Icy Point; higher beds not exposed

180 + Massive to thin-bedded fine-grained gray sandstone, some siltstone.

135' Dark-gray siltstone interbedded with medium-gray sandstone.

300' Massive dark-gray siltstone with interbeds of fine-grained gray sandstone.

100' Massive fine-grained dusky yellowish-green sandstone; many echinoids.

130' Gray siltstone interbedded with fine-grained gray sandstone.

670' Platy gray siltstone with a few thin beds of sandstone, grading up into interbedded siltstone and fine-grained gray sandstone.

90' Massive fine-grained gray sandstone.

270: Massive fine-grained partly calcareous greenish-gray sandstone, banded fine-grained gray sandstone.

565: Massive, soft partly calcareous gray siltstone with interbeds of fine-grained gray sandstone. Fine-grained olive gray sandstone at base.

770' Massive, hard partly sandy dark-greenish-gray siltstone.

215' Platy dark-gray siltstone, dark-greenish-gray sandstone.

225: Massive, partly calcareous dark-gray siltstone with thin beds of ripple-marked gray sandstone.

760: Massive hard dark-gray siltstone with thin beds of dark-greenish-gray sandstone.

840: Massive, hard dark-gray siltstone interbedded with massive fine- to medium-grained dark-greenish-gray sandstone.

235' Massive, hard dark-greenish gray fine-grained sandstone and sandy siltstone.

Massive fine- to medium-grained gray to greenish-gray sandstone, hard dark-gray siltstone.

180' Massive, hard dark-gray siltstone.

190, Dark-gray siltstone interbedded with silty sandstone. Rocks much fractured.

240' Fine-grained, partly silty dark-greenish-gray sandstone with thin beds of siltstone.

Hard dark-gray to black siltstone interbedded with fine-grained 300'+ greenish-gray sandstone. Partly concealed; rocks are much fractured and sheared.

Reef at mouth of Kaknau Creek; lower beds not exposed